

REMARKS

The Office Action dated January 10, 2005, has been carefully reviewed and the following remarks are made in consequence thereof.

Claims 1-23 are pending in this application. Claims 1, 12, and 21 stand rejected. Claims 2-11, 13-20, 22, and 23 are objected to.

The rejection of Claims 1, 12, and 21 under 35 U.S.C. § 102(e) as being anticipated by Kruger et al. (U.S. 2002/0173715) “Kruger” is respectfully traversed.

Kruger describes a method for acquiring an MR image from an extended field of view in which the patient table is continuously moved during the scan. The acquired MRI data is motion corrected to a common table reference position and a single, seamless MR image is reconstructed. MRI data acquired during the scan may be used to reconstruct images in real-time that enable the operator to monitor the progress of the contrast bolus and to adjust the speed of the table motion accordingly to insure peak contrast throughout the scan.

Claim 1 recites a method for conducting a perfusion study wherein the method includes “performing an initial full computed tomography scan of an area of interest in an object...performing at least one subsequent partial computed tomography scan of the area of interest to detect motion of a contrast agent.”

Kruger does not describe nor suggest a method for conducting a perfusion study wherein the method includes performing an initial full computed tomography scan of an area of interest in an object, and performing at least one subsequent partial computed tomography scan of the area of interest to detect motion of a contrast agent. Specifically, Kruger does not describe nor suggest conducting a perfusion study. Rather, in contrast to the present invention, Kruger describes acquiring a single MR image over a field of view which exceeds the normal field of view of the MRI system wherein the subject is moved continuously through the MRI system to maintain alignment with the rapidly moving contrast bolus and views are acquired along with table position data. Each view is position-corrected using the associated table position data to produce a single array of MRI data which is used to reconstruct an image. Accordingly, Kruger does not describe nor suggest conducting a perfusion study.

Moreover, Kruger does not describe nor suggest performing an initial full computed tomography scan of an area of interest in an object. Rather, in contrast to the present invention, Kruger describes acquisition of arbitrarily large MRI FOVs along the table motion direction with one uninterrupted data set.

Furthermore, Kruger does not describe nor suggest performing at least one subsequent partial computed tomography scan of the area of interest to detect motion of a contrast agent. Rather, Applicants respectfully submit that, at most, Kruger describes only an imaging scan wherein the table is moved continuously to maintain alignment with the peak contrast as it traverses through the subject but Kruger does not describe nor suggest performing at least one subsequent partial computed tomography scan to detect motion of a contrast agent during a perfusion study. As such, Kruger does not describe nor suggest all of the claimed elements of the present invention. Accordingly, Claim 1 is submitted to be patentable over Kruger.

Claim 12 recites a Computed Tomography (CT) System including “an x-ray radiation source...an x-ray radiation detector...a computer coupled to said radiation source and said radiation detector, said computer configured to...perform an initial full computed tomography scan of an area of interest in an object...perform at least one subsequent partial computed tomography scan of the area of interest to detect motion of a contrast agent.”

Kruger does not describe nor suggest a Computed Tomography (CT) System that includes an x-ray radiation source, an x-ray radiation detector, and a computer coupled to the radiation source and the radiation detector wherein the computer is configured to perform an initial full computed tomography scan of an area of interest in an object, and perform at least one subsequent partial computed tomography scan of the area of interest to detect motion of a contrast agent. Specifically, Kruger does not describe nor suggest an x-ray radiation source or an x-ray radiation detector. Rather, in contrast to the present invention, Kruger describes a an MRI system that includes a gradient coil assembly 139 that forms part of a magnet assembly 141, which includes a polarizing magnet 140 and a whole-body RF coil 152, but Kruger does not describe nor suggest an x-ray radiation source and an x-ray radiation detector.

Moreover, Kruger does not describe nor suggest a computer, coupled to the radiation source and the radiation detector, that is configured to perform an initial full computed tomography scan of an area of interest in an object. Rather, in contrast to the present

invention, Kruger describes acquisition of arbitrarily large MRI FOVs along the table motion direction with one uninterrupted data set.

Furthermore, Kruger does not describe nor suggest a computer, coupled to the radiation source and the radiation detector, that is configured to perform at least one subsequent partial computed tomography scan of the area of interest to detect motion of a contrast agent. Rather, Applicants respectfully submit that, at most, Kruger describes only an imaging scan wherein the table is moved continuously to maintain alignment with the peak contrast as it traverses through the subject but Kruger does not describe nor suggest performing at least one subsequent partial computed tomography scan to detect motion of a contrast agent during a perfusion study. As such, Kruger does not describe nor suggest all of the claimed elements of the present invention. Accordingly, Claim 12 is submitted to be patentable over Kruger.

Claim 21 recites a computer readable medium encoded with a program configured to “perform an initial full computed tomography scan of an area of interest in an object...perform at least one subsequent partial computed tomography scan of the area of interest to detect motion of a contrast agent.”

Kruger does not describe nor suggest a computer readable medium encoded with a program configured to perform an initial full computed tomography scan of an area of interest in an object, and perform at least one subsequent partial computed tomography scan of the area of interest to detect motion of a contrast agent. Specifically, Kruger does not describe nor suggest a computer readable medium encoded with a program configured to perform an initial full computed tomography scan of an area of interest in an object. Rather, in contrast to the present invention, Kruger describes acquisition of arbitrarily large MRI FOVs along the table motion direction with one uninterrupted data set.

Furthermore, Kruger does not describe nor suggest a computer readable medium encoded with a program configured to perform at least one subsequent partial computed tomography scan of the area of interest to detect motion of a contrast agent. Rather, Applicants respectfully submit that, at most, Kruger describes only an imaging scan wherein the table is moved continuously to maintain alignment with the peak contrast as it traverses through the subject but Kruger does not describe nor suggest performing at least one subsequent partial computed tomography scan to detect motion of a contrast agent during a

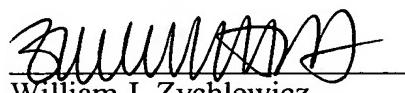
perfusion study. As such, Kruger does not describe nor suggest all of the claimed elements of the present invention. Accordingly, Claim 21 is submitted to be patentable over Kruger.

For at least the reasons set forth above, Applicants respectfully request that the Section 102 rejection of Claims 1, 12, and 21 be withdrawn.

The objection to Claims 2-11, 13-20, 22 and 23 as dependent upon rejected base claims is respectfully traversed. For the reasons set forth above, it is respectfully submitted that the respective base claims of Claims 2-11, 13-20, 22 and 23 are patentable over the cited art. When the recitations of Claims 2-11, 13-20, 22 and 23 are considered in combination with the recitations of their respective base claims, it is submitted that Claims 2-11, 13-20, 22 and 23 are likewise patentable over the cited art. Applicants according request that the objection to Claims 2-11, 13-20, 22 and 23 be withdrawn.

In view of the foregoing remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully requested.

Respectfully Submitted,



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